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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tetsuya Katagiri

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7590

08/31/2005

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EXAMINER

KIM, CHONG R

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/960,748	Applicant(s) KATAGIRI ET AL.	
	Examiner Charles Kim	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 20-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 8, 20-25 and 27 is/are rejected.
7) ☒ Claim(s) 7, 9, 26 and 28 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Finality Withdrawn

1. In response to the applicant's declaration as to accuracy of translation of the foreign priority document JP 2000-291489 filed on August 3, 2005, the rejection of claim(s) 1-8, 20-27 under 35 U.S.C. 103 (a) as being unpatentable over the combination of Hotta, Japanese Patent No. 2000-339467 ("Hotta") and Murata, Japanese Patent No. 10-332347 ("Murata") is withdrawn. Therefore, the finality of the previous office action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6, 8, 20-22, 25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Murata, Japanese Patent No. 10-332347 ("Murata") and Katayama et al., U.S. Patent No. 6,640,004 ("Katayama").

Referring to claim 1, Murata discloses a three-dimensional data generating system comprising:

a. a measurement portion (3) for generating three-dimensional data by measuring a shape of an object from plural directions so as to generate plural data (paragraphs 8-13);

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b. a position and posture changing portion (1) for changing a position or a posture of the object (paragraphs 6-7);

c. a position and posture sensing portion (4) including a first element provided in the measurement portion and a second element (A-D) provided in the position and posture changing portion, wherein the position and posture sensing portions measures a relative position and a relative posture between the first element and the second element [paragraphs 9-12 and figure 1. Note that the first element is interpreted as a structural element (such as the lens) in the measurement portion];

d. a data integrating portion (4) for integrating plural sets of three-dimensional data generated by plural times of measurements in the measurement portion based on each of the relative positions and the relative postures measured by the position and posture sensing portion at each of the measurements (paragraphs 15-18);

e. integrating the plural sets of three-dimensional data includes converting the coordinates of the plurality of three-dimensional data into a common three-dimensional coordinate system by using a conversion matrix (paragraphs 15-18).

Murata does not explicitly disclose that the measurement portion measures a three-dimensional shape of an object from plural directions. However, this feature was exceedingly well known in the art. For example, Katayama discloses a measurement portion (1) that measures a three-dimensional shape of an object from plural directions (col. 6, line 35-col. 7, line 17).

Murata and Katayama are combinable because they are both concerned with three-dimensional imaging systems. At the time of the invention, it would have been obvious to a

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person of ordinary skill in the art to modify the measurement portion of Murata so that it measures a three-dimensional shape of the object, as taught by Katayama. The suggestion/motivation for doing so would have been to enhance the precision and reliability of the three-dimensional data (Katayama, col. 3, lines 7-15). Therefore, it would have been obvious to combine Murata with Katayama to obtain the invention as specified in claim 1.

Referring to claim 2, Murata further discloses that the position and posture changing portion includes a movable member whose position and posture are kept constant with respect to the object during the plural times of measurements, and the second element is provided on the movable member (figure 1).

Referring to claim 3, Murata discloses that the position and posture changing portion further includes a support board (2) for changing the position and the posture of the movable member, and the movable member is a turn table rotationally driven by the support board (paragraph 6).

Referring to claim 6, Murata further discloses that the first element measures the position and the posture of the second element with respect to the first element (paragraphs 9-12).

Referring to claim 8, Murata further discloses that plural second elements are provided in the position and posture changing portion (figure 1).

Referring to claim 20, see the rejection of at least claim 1 above.

Referring to claim 21, see the rejection of at least claim 2 above.

Referring to claim 22, see the rejection of at least claim 3 above.

Referring to claim 25, see the rejection of at least claim 6 above.

Referring to claim 27, see the rejection of at least claim 8 above.

3. Claims 4-5, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Murata, Japanese Patent No. 10-332347 ("Murata"), Katayama et al., U.S. Patent No. 6,640,004 ("Katayama"), and Matsumoto et al., U.S. Patent No. 6,356,272 ("Matsumoto").

Referring to claim 4, Murata further that the position and posture changing portion further includes a movable member whose position and posture are kept constant with respect to the object during the plural times of measurements, and the second element is provided in the base member (figure 1). However, Murata and Katayama do not explicitly disclose a base member for changing the position and the posture of the movable member and a detecting portion for detecting an amount of change of the position and the posture of the movable member with respect to the base member. These features were exceedingly well known in the art. For example, Matsumoto discloses a position and posture changing portion (110) that includes a movable member whose position and posture are kept constant with respect to the object during the plural times of measurements (figure 4), a base member for changing the position and the posture of the movable member (figure 4), a detecting portion for detecting an amount of change of the position and the posture of the movable member with respect to the base member (col. 39, lines 27-38).

Murata, Katayama, and Matsumoto are combinable because they are all concerned with three-dimensional imaging systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the position and posture changing portion of Murata and Katayama in view of Matsumoto. The suggestion/motivation for doing so would have been to increase the accuracy of the three dimensional data (Matsumoto, page 3, paragraph

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35). Therefore, it would have been obvious to combine Murata and Katayama with Matsumoto to obtain the invention as specified in claim 4.

Referring to claim 5, Matsumoto further discloses that the base member is a support board and the movable member is a turn table rotationally driven by the support board (col. 39, lines 27-38 and figure 4), and the detecting portion includes an encoder for encoding the rotational angle of the turn table to the support board (col. 39, lines 37-39).

Referring to claim 23, see the rejection of at least claim 4 above.

Referring to claim 24, see the rejection of at least claim 5 above.

Allowable Subject Matter

4. Claims 7, 9, 26, 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

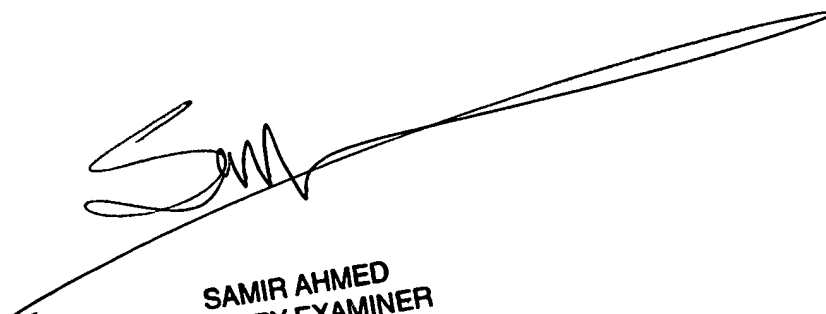
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 571-272-7421. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck

August 19, 2005



**SAMIR AHMED
PRIMARY EXAMINER**